

RECEIVED

JAN 02 2004

TECH CENTER 1600/2900



SEQUENCE LISTING

<110> Fung, Yuen Kai
Gomer, Charles
T'Ang, Anne

<120> Methods To Enhance And Confine Expression
Of Genes

<130> D6087

<140> 09/376,774
<141> 1999-08-17

<150> 60/096,947
<151> 1998-08-18

<160> 5

<210> 1
<211> 207
<212> PRT
<213> Unknown

<220>
<221> CHAIN
<223> amino acids 1-207 of tetracycline repressor

<400> 1

Met	Ser	Arg	Leu	Asp	Lys	Ser	Lys	Val	Ile	Asn	Ser	Ala	Leu	Glu
				5					10					15
Leu	Leu	Asn	Glu	Val	Gly	Ile	Glu	Gly	Leu	Thr	Thr	Arg	Lys	Leu
				20					25					30
Ala	Gln	Lys	Leu	Gly	Val	Glu	Gln	Pro	Thr	Leu	Tyr	Trp	His	Val
				35					40					45
Lys	Asn	Lys	Arg	Ala	Leu	Leu	Asp	Ala	Leu	Ala	Ile	Glu	Met	Leu
				50					55					60
Asp	Arg	His	His	Thr	His	Phe	Cys	Pro	Leu	Lys	Gly	Glu	Ser	Trp
				65					70					75

Gln	Asp	Phe	Leu	Arg	Asn	Asn	Ala	Lys	Ser	Phe	Arg	Cys	Ala	Leu	
				80					85					90	
Leu	Ser	His	Arg	Asn	Gly	Ala	Lys	Val	His	Ser	Asp	Thr	Arg	Pro	
				95					100					105	
Thr	Glu	Lys	Gln	Tyr	Glu	Thr	Leu	Glu	Asn	Gln	Leu	Ala	Phe	Leu	
				110					115					120	
Cys	Gln	Gln	Gly	Phe	Ser	Leu	Glu	Asn	Ala	Leu	Tyr	Ala	Leu	Ser	
				125					130					135	
Ala	Val	Gly	His	Phe	Thr	Leu	Gly	Cys	Val	Leu	Glu	Asp	Gln	Glu	
				140					145					150	
His	Gln	Val	Ala	Lys	Glu	Glu	Arg	Glu	Thr	Pro	Thr	Thr	Asp	Ser	
				155					160					165	
Met	Pro	Pro	Leu	Leu	Arg	Gln	Ala	Ile	Glu	Leu	Phe	Asp	His	Gln	
				170					175					180	
Gly	Ala	Glu	Pro	Ala	Phe	Leu	Phe	Gly	Leu	Glu	Leu	Ile	Ile	Cys	
				185					190					195	
Gly	Leu	Glu	Lys	Gln	Leu	Lys	Cys	Glu	Ser	Gly	Ser				
				200					205						

<210> 2
 <211> 128
 <212> PRT
 <213> Unknown

<220>
 <221> CHAIN
 <223> C-terminal last 128 amino acids of the
 transcription activation domain of VP16
 of the herpes simplex virus

Ala	Tyr	Ser	Arg	Ala	Arg	Thr	Lys	Asn	Asn	Tyr	Gly	Ser	Thr	Ile	
				5					10					15	
Glu	Gly	Leu	Leu	Asp	Leu	Pro	Asp	Asp	Asp	Ala	Pro	Glu	Glu	Ala	
				20					25					30	
Gly	Leu	Ala	Ala	Pro	Arg	Leu	Ser	Phe	Leu	Pro	Ala	Gly	His	Thr	
				35					40					45	
Arg	Arg	Leu	Ser	Thr	Ala	Pro	Pro	Thr	Asp	Val	Ser	Leu	Gly	Asp	
				50					55					60	

Glu	Leu	His	Leu	Asp	Gly	Glu	Asp	Val	Ala	Met	Ala	His	Ala	Asp	
				65					70					75	
Ala	Leu	Asp	Asp	Phe	Asp	Leu	Asp	Met	Leu	Gly	Asp	Gly	Asp	Ser	
				80					85					90	
Pro	Gly	Pro	Gly	Phe	Thr	Pro	His	Asp	Ser	Ala	Pro	Tyr	Gly	Ala	
				95					100					105	
Leu	Asp	Met	Ala	Asp	Phe	Glu	Phe	Glu	Gln	Met	Phe	Thr	Asp	Ala	
				110					115					120	
Leu	Gly	Ile	Asp	Glu	Tyr	Gly	Gly								
				125											

<210> 3

<211> 222

<212> DNA

<213> Unknown

<220>

<221> gene

<223> heat shock response element of human heat shock

70

gene promoter

<400> 3

ccccgggcggg	cgggcggggag	gctctcgact	gggcggggaag	gtgcggggaag	50
gttcgcggcg	gcgggggtcgg	ggaggtgcaa	aaggatgaaa	agcccgtgga	100
cggagctgag	cagatccggc	cgggctggcg	gcagagaaac	cgcagggaga	150
gcctcactgc	tgagcgcccc	tcgacgcggg	cggcagcagc	ctccgtggcc	200
tccagcatcc	gacaagaagc	tt			222

<210> 4

<211> 19

<212> DNA

<213> Unknown

<220>

<221> gene

<223> 19-base pair inverted repeats of operator
O2 of TN10

<400> 4
 tccctatcag tgatagaga

19

<210> 5
 <211> 10728
 <212> DNA
 <213> Unknown

<220>
 <221> misc_feature
 <223> recombinant vector pDATH-TNF α

<400> 5
 tcgagcccg gcgggcgggc gggaggctct cgactgggcg ggaaggtgcg 50
 ggaagggttcg cggcgggcggtc gtcggggagg tgcaaaagga tgaaaagccc 100
 gtggacggag ctgagcagat ccggccgggc tggcggcaga gaaaccgcag 150
 ggagagcctc actgctgagc gccctcgcac gcgggcgggca gcagcctccg 200
 tggcctccag catccgacaa gaagcttgctc gagtttacca ctccctatca 250
 gtgatagaga aaagtgaag tcgagtttac cactccctat cagtgataga 300
 gaaaagtga agtcgagttt accactccct atcagtgata gagaaaagtg 350
 aaagtcgagt ttaccactcc ctatcagtga tagagaaaag tgaaagtcga 400
 gtttaccact ccctatcagt gatagagaaa agtgaaagtc gagtttacca 450
 ctccctatca gtgatagaga aaagtgaag tcgagtttac cactccctat 500
 cagtgataga gaaaagtga agtcgagctc ggtacccggg tcgagtaggc 550
 gtgtacggtg ggaggcctat ataagcagag ctcgtttagt gaaccgtcag 600
 atcgccctgga gacgccatcc acgctgtttt gacctccata gaagacaccg 650
 ggaccgatcc agcctccgcg gcccgaatt catatgtcta gattagataa 700
 aagtaaagtg attaacagcg cattagagct gcttaatgag gtcggaatcg 750
 aaggtttaac aacccgtaaa ctgcgccaga agcttggtgt agagcagcct 800
 aactgtatt ggcattgtaaa aaataagcgg gctttgctcg acgccttagc 850
 cattgagatg ttagataggc accatactca cttttgccct ttaaaagggg 900
 aaagctggca agatttttta cgcaataacg ctaaaagttt tagatgtgct 950
 ttactaagtc atcgcaatgg agcaaaagta cattcagata cacggcctac 1000
 agaaaaacag tatgaaactc tcgaaaatca attagccttt ttatgccaac 1050
 aaggtttttc actagagaac gcgttatatg cactcagcgc tgtggggcat 1100
 ttacttttag gttgcgtatt ggaagatcaa gagcatcaag tcgctaaaga 1150
 agaaagggaa acacctacta ctgatagtat gccgccatta ttacgacaag 1200
 ctatcgaatt atttgatcac caaggtgcag agccagcctt cttattcggc 1250
 cttgaattga tcatatgcgg attagaaaaa caacttaa atgtgaaagtgg 1300
 gtccgcgtac agccgcgcgc gtacgaaaaa caattacggg tctaccatcg 1350

agggcctgct	cgatctcccc	gacgacgacg	ccccgaaga	ggcggggctg	1400
gcggtccgc	gcctgtcctt	tctccccgcg	ggacacacgc	gcagactgtc	1450
gacggccccc	ccgaccgatg	tcagcctggg	ggacgagctc	cacttagacg	1500
gcgaggacgt	ggcgatggcg	catgccgacg	cgctagacga	tttcgatctg	1550
gacatgttgg	gggacgggga	ttccccgggt	ccgggattta	ccccccacga	1600
ctccgcccc	tacggcgctc	tggatatggc	cgacttcgag	tttgagcaga	1650
tgtttaccga	tgcccttggg	attgacgagt	acggtgggta	gggggcgcg	1700
ggatccagac	atgataagat	acattgatga	gtttggacaa	accacaacta	1750
gaatgcagtg	aaaaaaatgc	tttattttgtg	aaattttgtga	tgctattgct	1800
ttattttgtaa	ccattataag	ctgcaataaa	caagttaaca	acaacaattg	1850
cattcatttt	atgttttcagg	ttcaggggga	ggtgtgggag	gtttttttaa	1900
gcaagtaaaa	cctctacaaa	tgtggtatgg	ctgattatga	tcctgcaagc	1950
ctcgtcgtct	ggccggacca	cgctatctgt	gcaaggctcc	cggacgcgcg	2000
ctccatgagc	agagcgcccc	ccgccgaggc	aagactcggg	cggcgccctg	2050
cccgtcccac	caggtcaaca	ggcggtaacc	ggcctcttca	tcgggaatgc	2100
gcgcgacctt	cagcatcgcc	ggcatgtccc	ctggcggacg	ggaagtatca	2150
gctcgaccaa	gcttggcgag	atttttcagga	gctaaggaag	ctaaaatgga	2200
gaaaaaaatc	actggatata	ccaccgttga	tatatcccaa	tggcatcgta	2250
aagaacattt	tgaggcattt	cagtcagttg	ctcaatgtac	ctataaccag	2300
accgttcagc	tctagagcaa	ttcctttgcc	taattttaa	gaggacttaa	2350
cctgtggaaa	tatttttgatg	tgggaagctg	ttactgttaa	aactgagggt	2400
attggggtaa	ctgctatggt	aaacttgcat	tcagggacac	aaaaaactca	2450
tgaaaatggt	gctggaaaac	ccattcaagg	gtcaaatttt	catttttttg	2500
ctgttggtgg	ggaacctttg	gagctgcagg	gtgtgttagc	aaactacagg	2550
accaaataatc	ctgctcaaac	tgtaacccca	aaaaatgcta	cagttgacag	2600
tcagcagatg	aacactgacc	acaaggctgt	tttggataag	gataatgctt	2650
atccagtgga	gtgctggggt	cctgatccaa	gtaaaaatga	aaacactaga	2700
tatttttgga	cctacacagg	tggggaaaat	gtgcctcctg	ttttgcacat	2750
tactaacaca	gcaaccacag	tgcttcttga	tgagcagggt	gttgggccct	2800
tgtgcaaagc	tgacagcttg	tatgtttctg	ctgttgacat	ttgtgggctg	2850
tttaccaaca	cttctggaac	acagcagtg	aagggacttc	ccagatattt	2900
taaaattacc	cttagaaaagc	ggtctgtgaa	aaaccctac	ccaatttcct	2950
ttttgttaag	tgacctaat	aacaggagga	cacagagggt	ggatgggcag	3000
cctatgattg	gaatgtcctc	tcaagtagag	gaggttagg	tttatgagga	3050
cacagaggag	cttcttggg	atccagacat	gataagatac	attgatgagt	3100
ttggacaaac	cacaactaga	atgcagtgaa	aaaaatgctt	tattttgtgaa	3150
atttgtgatg	ctattgcttt	atttgtaacc	attataagct	gcaataaaca	3200
agttaacaac	aacaattgca	ttcattttat	gtttcagggt	cagggggagg	3250
tgtgggaggt	tttttaaagc	aagtaaaacc	tctacaaatg	tggtatggct	3300
gattatgatc	tctagtcaag	gcactataca	tcaaataattc	cttattaacc	3350

cctttacaaa	ttaaaaagct	aaagggtacac	aatttttgag	catagttatt	3400
aatagcagac	actctatgcc	tgtgtggagt	aagaaaaaac	agtatgttat	3450
gattataact	gttatgccta	cttataaagg	ttacagaata	tttttccata	3500
attttcttgt	atagcagtgc	agctttttcc	tttgtggtgt	aaatagcaaa	3550
gcaagcaaga	gttctattac	taaacacagc	atgactcaaa	aaacttagca	3600
attctgaagg	aaagtccttg	gggtcttcta	cctttctctt	cttttttgga	3650
ggagtagaat	gttgagagtc	agcagtagcc	tcatcatcac	tagatggcat	3700
ttcttctgag	caaaacaggt	tttcctcatt	aaaggcattc	caccactgct	3750
cccattcatc	agttccatag	gttggaatct	aaaatacaca	aacaattaga	3800
atcagtagtt	taacacatta	tacacttaaa	aattttatat	ttaccttaga	3850
gctttaaatc	tctgtaggta	gtttgtccaa	ttatgtcaca	ccacagaagt	3900
aaggttcctt	cacaaagatc	cgctccggc	gaatttctgc	cattcatccg	3950
cttattatca	cttattcagg	cgtagcacca	ggcgtttaag	ggcaccaata	4000
actgccttaa	aaaaattacg	ccccgcctg	ccactcatcg	cagtgtctta	4050
gaactagtgg	atccccggg	ctgcaggaat	tcgatatcaa	gcttatcgat	4100
accgtcgaga	tcccctgcag	cattctggcc	agaaccaaa	gctccctggg	4150
ctccagattc	cagatgtcag	ggatcaaagc	tgtaggcccc	agtgagttct	4200
ggaggcccca	gtttgaattc	ttagtggttg	ccagcacttc	actgtgcagg	4250
ccacacattc	ctgaatccca	ggtttcgaag	tggtggtctt	gttgcttaaa	4300
gttctaagct	tgggttccga	ccctaagccc	ccaattctct	ttttgagcca	4350
gaagaggttg	aggggtgtctg	aaggaggggg	taataaaggg	attggggcag	4400
gggaggcggt	tgggaagggt	ggatgttcgt	cctcctcaca	gggcaatgat	4450
cccaaagtag	acctgcccag	actcggcaaa	gtcgagatag	tcggggccgat	4500
tgatctcagc	gctgagtcgg	tcacccttct	ccagctggaa	gacccctccc	4550
agatagatgg	gctcatacca	gggcttggcc	tcagccccct	ctgggggtctc	4600
cctctggcag	gggctcttga	tggcagagag	gaggttgacc	ttgggtctggg	4650
aggagacggc	gatgcggctg	atgggtgtggg	tgaggagcac	atgggtggag	4700
gggcagcctt	ggcccttgaa	gaggacctgg	gagtagatga	ggtacaggcc	4750
ctctgatggc	accaccagct	ggttatctct	cagctccacg	ccattggcca	4800
ggagggcatt	ggcccggcgg	ttcagccact	ggagctgccc	ctcagcttga	4850
gggtttgcta	caacatgggc	tacaggcttg	tactcgggg	ttcgagaaga	4900
tgatctgact	gcctgggcca	gagggtgat	tagagagagg	tccctggggg	4950
actcttccct	ctggggggccg	atcactccaa	agtgcagcag	gcagaagagc	5000
gtggtggcgc	ctgccacgat	caggaaggag	aagaggctga	ggaacaagca	5050
cgcctggag	ccctggggcc	ccctgtctt	cttggggagc	gcctcctcgg	5100
ccagctccac	gtcccggatc	atgctttcag	tgctcatggg	gtcctttcca	5150
ggggagagag	ggtggagccg	tgggtcagta	tgtgagagga	agagaacctg	5200
cctggcagct	tgtcaggggtg	tgtgcaggg	atctcgacct	cgactctaga	5250
ggatccccgg	gtaccgagct	cgaattcggg	gccgcggagg	ctggatcggt	5300
cccggtgtct	tctatggagg	tcaaaacagc	gtggatggcg	tctccaggcg	5350

atctgacggt	tcactaaacg	agctctgctt	atataggcct	cccaccgtac	5400
acgcctactc	gacccgggta	ccgagctcga	ctttcacttt	tctctatcac	5450
tgatagggag	tggtaaactc	gacttttact	tttctctatc	actgataggg	5500
agtggtaaac	tcgactttca	cttttctcta	tcactgatag	ggagtggtaa	5550
actcgacttt	cactttttctc	tatcactgat	agggagtggg	aaactcgact	5600
ttcacttttc	tctatcactg	atagggagtg	gtaaactcga	ctttcacttt	5650
tctctatcac	tgatagggag	tggtaaactc	gacttttact	tttctctatc	5700
actgataggg	agtggtaaac	tcgatcgagg	gggggcccgg	taccagctt	5750
ttgttccctt	tagtgagggt	taattgcgcg	cttggcgtaa	tcattgggtcat	5800
agctgtttcc	tgtgtgaaat	tgttatccgc	tgcattaatg	aatcggccaa	5850
cgcgcgggga	gaggcgggtt	gcgtattggg	cgctcttccg	cttcctcgct	5900
cactgactcg	ctgcgctcgg	tcgttcggct	gcggcgagcg	gtatcagctc	5950
actcaaaggc	ggtaatacgg	ttatccacag	aatcagggga	taacgcagga	6000
aagaacatgt	gagcaaaagg	ccagcaaaag	gccaggaacc	gtaaaaaggc	6050
cgcgtttgctg	gcgtttttcc	ataggctccg	ccccctgac	gagcatcaca	6100
aaaatcgacg	ctcaagtcag	aggtggcgaa	acccgacagg	actataaaga	6150
taccaggcgt	ttccccctgg	aagctccctc	gtgcgctctc	ctgttccgac	6200
cctgccgctt	accggatacc	tgctccgctt	tctcccttcg	ggaagcgtgg	6250
cgcttttctca	atgctcacgc	tgtaggtatc	tcagttcggg	gtaggtcggt	6300
cgctccaagc	tgggctgtgt	gcacgaacc	cccgttcagc	ccgaccgctg	6350
cgccttatcc	ggtaactatc	gtcttgagtc	caaccgcgta	agacacgact	6400
tatcgccact	ggcagcagcc	actggtaaca	ggattagcag	agcgagggtat	6450
gtaggcggtg	ctacagagtt	cttgaagtgg	tggcctaact	acggctacac	6500
tagaaggaca	gtatttggtg	tctgcgctct	gctgaagcca	gttaccttcg	6550
gaaaaagagt	tggtagctct	tgatccggca	aacaaaccac	cgctggtagc	6600
gggtggttttt	ttgtttgcaa	gcagcagatt	acgcgcagaa	aaaaaggatc	6650
tcaagaagat	cctttgatct	tttctacggg	gtctgacgct	cagtggaaacg	6700
aaaactcacg	ttaagggatt	ttgggtcatga	gattatcaaa	aaggatcttc	6750
acctagatcc	ttttaaatga	aaaatgaagt	tttaaatcaa	tctaaagtat	6800
atatgagtaa	acttggtctg	acagttacca	atgcttaatc	agtgaggcac	6850
ctatctcagc	gatctgtcta	tttcgttcat	ccatagttgc	ctgactcccc	6900
gtcgtgtaga	taactacgat	acgggagggc	ttaccatctg	gccccagtgc	6950
tgcaatgata	ccgcgagacc	cacgctcacc	ggctccagat	ttatcagcaa	7000
taaaccagcc	agccggaagg	gccgagcgca	gaagtgggtcc	tgcaacttta	7050
tccgcctcca	tccagtctat	taattgttgc	cgggaagcta	gagtaagtag	7100
ttcgccagtt	aatagtttgc	gcaacgttgt	tgccattgct	acaggcatcg	7150
tgggtgtcacg	ctcgtcgttt	ggtatggctt	cattcagctc	cggttcccaa	7200
cgatcaaggc	gagttacatg	atcccccatg	ttgtgcaaaa	aagcggtttag	7250
ctccttcggt	cctccgateg	ttgtcagaag	taagttggcc	gcagtgttat	7300
cactcatggg	tatggcagca	ctgcataatt	ctcttactgt	catgccatcc	7350

gtaagatgct	tttctgtgac	tggtgagtac	tcaaccaagt	cattctgaga	7400
atagtgtatg	cggcgaccga	gttgctcttg	cccggcgtca	atacgggata	7450
ataccgcgcc	acatagcaga	acttttaaag	tgctcatcat	tggaaaacgt	7500
tcttcggggc	gaaaactctc	aaggatctta	ccgctgttga	gatccagttc	7550
gatgtaaccc	actcgtgcac	ccaactgate	ttcagcatct	tttactttca	7600
ccagcgtttc	tgggtgagca	aaaacaggaa	ggcaaaatgc	cgcaaaaaag	7650
ggaataaggg	cgacacggaa	atgttgaata	ctcatactct	tcctttttca	7700
atctgaacgg	tctggttata	ggtacattga	gcaactgact	gaaatgcctc	7750
aaaatgttct	ttacgatgcc	attgggatat	atcaacgggtg	gtatatccag	7800
tgattttttt	ctccatttta	gcttccttag	ctcctgaaaa	tctcgccaag	7850
cttggtcgag	ctgatacttc	ccgtccgcca	ggggacatgc	cggcgatgct	7900
gaaggtcgcg	cgcattcccc	atgaagaggc	cggttaccgc	ctgttgacct	7950
ggtgggacgg	gcagggcgcc	gcccagagtct	tgcctcggcg	gcgggcgctc	8000
tgctcatgga	gcgcgcgtcc	ggggaccttg	cacagatagc	gtgggtccggc	8050
cagacgacga	ggcttgacgg	atcataatca	gccataccac	at ttgtagag	8100
gttttacttg	ctttaaaaaa	cctcccacac	ctccccctga	acctgaaaca	8150
taaaatgaat	gcaattgttg	ttgttaactt	gtttattgca	gcttataatg	8200
gttaciaaata	aagcaatagc	atcaciaaatt	tcaciaaataa	agcatttttt	8250
tcactgcatt	ctagtgtgtg	tttgtccaaa	ctcatcaatg	tatcttatca	8300
tgtctggatc	tcgacagtct	gcgcgtgtgt	cccgcgggga	gaaaggacag	8350
gcgcggagcc	gccagccccg	cctcttcggg	ggcgtcgtcg	tccgggagat	8400
cgagcaggcc	ctcgatggta	gaccgcgtaat	tgtttttcgt	acgcgcgcgg	8450
ctgtacgcgg	accacttttc	acattttaagt	tgtttttcta	atccgcatat	8500
gatcaattca	aggccgaata	agaaggctgg	ctctgcacct	tggtgatcaa	8550
ataattcgat	agcttgtcgt	aataatggcg	gcatactatc	agtagtaggt	8600
gtttcccttt	cttcttttagc	gacttgatgc	tcttgatctt	ccaatacgca	8650
acctaaagta	aaatgccccca	cagcgtgag	tgcataataac	gcgttctcta	8700
gtgaaaaacc	ttgttgggcat	aaaaaggcta	attgattttc	gagagtttca	8750
tactgttttt	ctgtaggccg	tgtatctgaa	tgtacttttg	ctccattgcg	8800
atgacttagt	aaagcacatc	taaaactttt	agcgttattg	cgtaaaaaat	8850
cttgccagct	ttcccctttt	aaagggcaaa	agtgagtatg	gtgcctatct	8900
aacatctcaa	tggctaaggc	gtcgagcaaa	gcccgttat	tttttacatg	8950
ccaatacagt	gtaggctgct	ctacaccaag	cttctggggc	agtttacggg	9000
ttgttaaacc	ttcgattccg	acctcattaa	gcagctctaa	tgcgctgtta	9050
atcactttac	ttttatctaa	tctagacata	tgaattcggg	gccgcggagg	9100
ctggatcggt	cccgggtgtct	tctatggagg	tcaaaacagc	gtggatggcg	9150
tctccaggcg	atctgacggg	tcactaaacg	agctctgctt	atatagacct	9200
cccaccgtac	acgcctaccg	cccatttgcg	tcaatggggc	ggagtgttta	9250
cgacattttg	gaaagtcccc	ttgattttgg	tgccaaaaca	aactcccatt	9300
gacgtcaatg	gggtggagac	ttggaaatcc	ccgtgagtca	aaccgctatc	9350

cacgcccatt	gatgtactgc	caaaaccgca	tcaccatggg	aatagcgatg	9400
actaatacgt	agatgtactg	ccaagtagga	aagtcccata	aggatcatgta	9450
ctgggcataa	tgccaggcgg	gccattttacc	gtcattgacg	tcaatagggg	9500
gcgtactttg	catatgatac	acttgatgta	ctgccaagtg	ggcagtttag	9550
cgtaaatact	ccacccattg	acgtcaatgg	aaagtcccta	ttggcgttac	9600
tatgggaaca	tacgtcatta	ttgacgtcaa	tgggcggggg	tcgttgggcg	9650
gtcagccagg	cgggccattt	accgtaagtt	atgtaacgcg	gaactccata	9700
tatgggctat	gaactaatga	ccccgtaatt	gattactatt	aataactagt	9750
caataatcaa	tgtcaacatg	gcggtaatgt	tggacatgag	ccaatataaa	9800
tgtacatatt	atgatatgga	tacaacgtat	gcaatggggc	aagctctcga	9850
cttgttttatt	gcattacata	tgtctagatt	agataaaaagt	aaagtgatta	9900
acagcgcatt	agagctgctt	aatgaggtcg	gaatcgaagg	taagcttcat	9950
atgaattccg	gggccgcgga	ggctggatcg	gtcccgggtg	cttctatgga	10000
ggtcaaaaaca	gcgtgggatg	cgtctccagg	cgatctgacg	gttcactaaa	10050
cgagctctgc	ttatatagac	ctcccaccgt	acacgcctac	cgcccathtt	10100
cgtcaatggg	gcggagttgt	tacgacattt	tggaaagtcc	cgttgatttt	10150
ggtgccaaaa	caaactccca	ttgacgtcaa	tgggggtggag	acttggaat	10200
ccccgtgagt	caaaccgcta	tccacgcca	ttgatgtact	gccaaaaccg	10250
catcaccatg	gtaatagcga	tgactaatac	gtagatgtac	tgccaagtag	10300
gaaagtccca	taaggatcatg	tactgggcat	aatgccaggc	gggccattta	10350
ccgtcattga	cgtcaatagg	gggcgtactt	ggcatatgat	acacttgatg	10400
tactgccaa	tgggcagttt	agcgtaaata	ctccacccat	tgacgtcaat	10450
ggaaagtccc	tattggcggt	actatgggaa	catacgatcat	tattgacgtc	10500
aatgggcggg	ggtcggttggg	cggtcagcca	ggcggggccat	ttaccgtaag	10550
ttatgtaacg	cggaaactcca	tatatgggct	atgaactaat	gaccccgtaa	10600
ttgattacta	ttaataacta	gtcaataatc	aatgtcaaca	tggcggtaat	10650
gttggacatg	agccaatata	aatgtacata	ttatgatatg	gatacaacgt	10700
atgcaatggg	ccaagctcct	cgactcga			10728